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P56085

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THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of:

Appeal No. \_\_\_\_\_

YONG-TAE JEONG

Serial No.: 09/576,218

Examiner: PHAM, THIERRY L.

Filed: 22 May 2000

Art Unit: 2624

For: REDUCING A STANDBY PERIOD OF TIME FOR PRINTING (as amended)

**TRANSMITTAL OF SUBSTITUTE APPEAL BRIEF**

**Mail Stop Appeal Brief-Patents**

Commissioner for Patents

P.O.Box 1450

Alexandria, VA 22313-1450

Sir:

Accompanying this transmittal is a Substitute Appeal Brief prepared in response to the Order dated 21 October 2005.

In accordance with the instructions set forth in the Order, in the Substitute Appeal Brief, three sections which were missing from the Appeal Brief filed on 31 January 2005, namely 1) Summary of claimed subject matter", 2) Evidence appendix", and 3) Related proceedings appendix, have been inserted.

The foregoing substitute Appeal Brief is submitted in triplicate.

Respectfully submitted,

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Folio: P56085

Date: 11/7/05

I.D.: REB/kf



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**SUBSTITUTE APPEAL BRIEF**

**Paper No. 22**

**Mail Stop Appeal Brief-Patents**

Commissioner for Patents

P.O.Box 1450

Alexandria, VA 22313-1450

Sir:

In response to the Order dated 21 October 2005, to the November 2, 2004 Advisory Action (Paper No. 20041028), and further our Notice of Appeal of December 1, 2004, the following is submitted. The Substitute Appeal Brief is being submitted in triplicate.

Folio: P56085

Date: 11/7/05

I.D.: REB/HZ/kf

## **I. REAL PARTY IN INTEREST**

Pursuant to 37 CFR §41.37(c)(1)(as amended), the real party in interest is:

Samsung Electronics Co., Ltd.  
#416, Maetan-dong, Yeongtong-gu  
Suwon-si, Gyeonggi-do, Republic of KOREA

as evidenced by an Assignment by the inventor, executed on June 27, 2000 and recorded in the US Patent and Trademark Office on August 17, 2000 at Reel 011005, Frame 0153.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other prior and pending appeals, interferences or judicial proceedings known to Appellant, the Appellant's legal representative, or Assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## **III. STATUS OF CLAIMS**

Claims 1-13 have been canceled. Claims 14-37 are the claims on appeal.

## **IV. STATUS OF AMENDMENTS**

An Amendment After Final was submitted to the US Patent and Trademark Office on September 23, 2004 and entered by the Examiner in the November 2, 2004 Advisory Action.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 14 is directed to a method of reducing standby time for printing in a

system of networked printers connected to at least one host computer. Independent claim 22 is directed to a program storage device, readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of reducing standby time for printing in a system of networked printers connected to at least one host computer. Independent claim 30 is directed to a system of networked printers connected to at least one host computer.

As noted in the first paragraph of the Summary of the Invention on page 4 of the original application, when a host computer detects the amount of print operations in every network to one of a plurality of printers, it transmits print data to a network printer that has no pending print operations or else has the least amount of print operations and causes the network printer to print the print data.

Figs. 1-3 are respectively a schematic diagram of the connections among a plurality of host computers and network printers, a block diagram of a host computer and network printer in detail, and a flowchart of a procedure for registering network printer information in the host computer. In these drawing figures are discussed in detailing on pages 7-10 of the original application. The specific procedure of the present invention is illustrated in Fig. 4 and discussed on pages 11 and 12 of the original application.

Fig. 4 and its corresponding description illustrate the claimed method steps of claim 14 as well as the method steps performed by the program storage device of claim 22 and the functions

performed by the recited elements of the system of claim 30.

The various recited method steps of claims 15-21 are discussed on pages 11 and 12 of the original application. Similarly, the method steps performed by the program storage device of claims 23-29 and the functions performed by the recited elements of the system of claims 31-37 are also discussed on pages 11 and 12 of the original application.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 14-37 have been rejected under 35 U.S.C. §102(b) as being anticipated by Ishii (JP410116165A) for the reasons stated in section 4 on pages 2-4 of the July 1, 2004 Final Office Action (Paper No. 11).

## **VII. ARGUMENT**

### **Claim 14-**

The Examiner's rejection in the July 1, 2004 Final Office Action corresponds to the earlier rejection contained within the April 16, 2004 Office Action.

In the April 22, 2004 Amendment in response to the January 16, 2004 Office action (Paper No. 6), Appellants argued that the present invention relates to a system of networked printers in which at least one host computer is connected via a network to the plurality of networked printers. Information and commands are transmitted therebetween to reduce the standby time for printing.

All of the operations of the system are handled by the at least one host computer and the plurality of networked printers via the network connected therebetween. **No print server is necessary.**

In response thereto, the Examiner states “However, Ishii teaches a direct communication between a printer and host computer without having to use the print server (page 1).”

Appellants disagree with the Examiner's above-noted statement. There is nothing in the entire Ishii translation that indicates or even suggests that the network print system is operable without a print server. In fact, the Examiner's attention is directed to the “SOLUTION” stated in the Abstract of Ishii which states:

When computers 10 to 13 and printers 20 to 22 are connected to the network 50 and a computer prints printed data on a printer, **a print server 30 connected to the network 50 temporarily stores the print data from the computer, selects and determines an optimum printer out of the printer devices 20 to 22 according to printer information including operation states and print characteristic information obtained by inquiring the printer information of the printer devices connected to the network, and sends the print data to the determined printer device to print the print data.**

Furthermore, in response to the argument that the present invention operates without a print server, the Examiner states that claims 14-37 do not recite the nature of network communication

without a print server.

Appellants disagree with a Examiner since the entire application and present claims are directed to a networked printer system that operates without a print server. It is clear from the recitation of claim 14 that the only elements in the networked system are the printers connected to at least one host computer. It is clear that all of the method steps of claim 14 and claim 22, for example, refer to operations that are only carried out by the at least one host computer. In addition, systems claim 30 only recites at least one host computer, a plurality of network printers, and a network adapted to transfer data between the at least one host computer and the plurality of networked printer and further recites that the controller of the at least one host computer performs the various functions of the networked printer system.

Stated simply, it is inherent in the recitation of claims 14-37 that the at least one host computer performs all of the needed operations of the networked printer system. Ishii, on the other hand, is clearly directed to a networked printer system in which a print server performs all of the needed operations thereof. The entire translation of Ishii is directed to the operation of the print server 30 and its interaction with the computer is 10-13 and printers 20-22 (*see* pages 3-7 of the translation).

As to the specific points raised by the Examiner, the Examiner argues:

(1) that the registering step registers a plurality of printers with a print server. As noted above, the present invention operates without a print server.

(2) that the accessing step accesses information of the printers that [are] connected via a network. However, paragraph 0028 of Ishii indicates that the print server 30 performs this function rather than the at least one host computer as in the present invention.

(3) that the transmitting of a request command from the at least one host computer to the networked printers requesting the networked printers to transmit standby print information to the at least one host computer. However, paragraphs [0028]-[0038] of Ishii indicate that elements 301-306 of the print server 30 perform this function rather than the at least one host computer as in the present invention.

(4)-(5) that the determining and transmitting steps are disclosed in Ishii. However, as noted above, the print server 30 perform this function rather than the at least one host computer as in the present invention.

In view of the above, it is submitted that claim 14 is patentable over Ishii.

**Claim 15-**

The Examiner states: "Regarding claim 15, Ishii further discloses the method of claim 14,



wherein registering at least one item of network print information in at least one host computer comprises: determining (server, fig. 1, page 3) whether a command for registering network printer information in the at least one host computer has been issued; detecting (print server, page 4) the network printers connected to the network; and storing (storing section, fig. 2, page 4) the network printer information in a memory of the at least one host computer.”

As noted above, the at least one host computer registering at least one item of network print information in at least one host computer does not use a print server. The present invention is directed to **eliminating** the need for a print server.

Accordingly, since the Examiner admits that the detecting step of claim 15 is performed by the print server of Ishii, it is submitted that Ishii teaches away from the present invention which eliminates the need for a print server.

In view of the above, it is submitted that claim 15 is patentable over Ishii.

**Claim 16-**

The Examiner states: “Regarding claim 16, Ishii further discloses the method of claim 15, further comprising the siding priority numbers to the network printer information in order of detection and storing the assigning priority numbers (left column, fig. 8) in the memory.”

However, as noted in section [0037] of the English language translation of Ishii, Fig. 8 is “an example of the storing format of the status information storing section 306”. Section [0017] of the English language translation of Ishii indicates that the print server includes the status information storing section 306.

Accordingly, as noted above, the present invention is directed to eliminating the need for a print server. Since the recited feature of claim 16 is purportedly performed in the print server of Ishii, it is again submitted that Ishii teaches away from the present invention which eliminates the need for a print server.

In view of the above, it is submitted that claim 16 is patentable over Ishii.

**Claim 17-**

The Examiner states: “Regarding claim 17, Ishii further discloses the method of claim 16, wherein determining a minimum-utilized networked printer comprises: detecting (control mechanism, page 6) the priority numbers assigned to the networked printers having the lowest amounts of standby print operations (printer with waiting status, that is, printer with no print operations, page 6); and selecting (selects via a keyboard or mouse which is incorporated among the computer system) a networked printer having a preferential priority number as the minimum-utilized network printer.

However, it is noted that the control mechanism 303 of Ishii is part of the print server of Ishii as illustrated in Fig. 6 of Ishii.

Accordingly, as noted above, the present invention is directed to **eliminating** the need for a print server. Since at least one of the recited feature is of claim 17 is purportedly performed in the print server of Ishii, it is again submitted that Ishii teaches away from the present invention which eliminates the need for a print server.

In view of the above, it is submitted that claim 17 is patentable over Ishii.

**Claims 18-20-**

The Examiner states that Ishii further discloses the recited features of claims 18-20 as evidenced by the second column of Fig. 8.

As noted above, as noted in section [0037] of the English language translation of Ishii, Fig. 8 is "an example of the storing format of the status information storing section 306". Section [0017] of the English language translation of Ishii indicates that the print server includes the status information storing section 306.

Accordingly, as noted above, the present invention is directed to eliminating the need for a print server. Since the recited feature of claims 18-20 is purportedly performed in the print

server of Ishii, it is again submitted that Ishii teaches away from the present invention which eliminates the need for a print server.

In view of the above, it is submitted that claims 18-20 are patentable over Ishii.

**Claims 22-29-**

The Examiner states: "Regarding claims 22-29, please see rejection rationale/basis as described in claims 14-21 (respectively) for more details."

However, claims 22-29 are not directed to a method (as is claims 14-21) but rather are directed to a program storage device, readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of producing standby time for printing and a system of network printers connected to at least one host computer.

However, Ishii does not teach or suggest the program storage device of claims 22-29 and accordingly, it is submitted that claims 22-29 are patentable over Ishii for that reason alone.

Furthermore, since the method steps performed by the machine as recited in claims 22-29 correspond to the method steps recited in claims 14-21, it is submitted that claims 22-29 are patentable over Ishii for the same reasons noted above with regard to claims 14-21.

**Claims 30-37-**

The Examiner states: “Regarding claims 30-37 , please see rejection rationale/basis as described in claims 14-21 (respectively) for more details.”

Claims 30-33 recite a system comprising at least one host computer and a plurality of network printers and they network adapted to transfer data between the at least one computer and the plurality of network printers. They further recite that the at least one computer includes a controller, a memory operatively connected to the controller, and an interface adapted to transfer data between the controller and the network and further recite that each of the plurality of network printers include a controller, a memory operatively connected to the controller, and an interface adapted to transfer data between the controller and the network.

The remaining recitation of these claims recite functions performed by the controller of the at least one computer, these functions being related to the recited method steps of claims 14-17.

Since, as noted above, the recited method steps of claims 14-17 are not performed by the controller of Ishii but rather are performed by the print server of Ishii, it is submitted that claims 30-33 are patentable over Ishii for the reasons noted above with regard to claims 14-17.

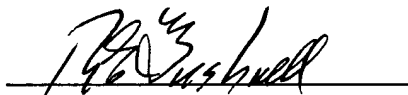
Similarly, the recitation of the functions of claims 34-37 are related to the recited method steps of claims 18-21.

Since, as noted above, the recited method steps of claims 18-21 are not performed by the controller of Ishii but rather are performed by the print server of Ishii, it is submitted that claims 34-37 are patentable over Ishii for the reasons noted above with regard to claims 18-21.

In view of the above, reversal of the final rejection of the claims on appeal is respectfully requested.

A fee of \$500.00 is incurred by filing of this Appeal Brief Applicant's check drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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I.D.: REB/HZ

## VIII. APPENDIX

### CLAIMS UNDER APPEAL (Claims 14-37)

1           14. (Previously Presented) A method of reducing standby time for printing in a system of  
2 networked printers connected to at least one host computer, the method comprising:

3           the at least one host computer registering at least one item of network print information in  
4 at least one host computer;

5           the at least one host computer accessing the network printer information registered in the  
6 at least one host computer in response to a command for printing print-data being issued;

7           the at least one host computer transmitting a request command from the at least one host  
8 computer to the networked printers requesting the networked printers to transmit standby print  
9 information to the at least one host computer, the standby print information relating to the amount  
10 of standby print operations of the respective networked printers;

11           the at least one host computer determining a minimum-utilized networked printer having  
12 a lowest amount of standby print operations from among the networked printers having standby  
13 print operations from the standby print information transmitted from the networked printers to the  
14 at least one host computer in response to the request command; and

15           the at least one host computer transmitting the print-data from the at least one host  
16 computer to the network printer determined to be the minimum-utilized network printer.

1           15. (Previously Presented) The method of claim 14, wherein registering at least one item  
2 of network print information in at least one host computer comprises:

3 determining whether a command for registering network printer information in the at least  
4 one host computer has been issued;  
5 detecting the network printers connected to the network; and  
6 storing the network printer information in a memory of the at least one host computer.

1 16. (Previously Presented) The method of claim 15, further comprising assigning priority  
2 numbers to the network printer information in order of detection and storing the assigning priority  
3 numbers in the memory.

1 17. (Previously Presented) The method of claim 16, wherein determining a  
2 minimum-utilized networked printer comprises:

3 detecting the priority numbers assigned to the networked printers having the lowest  
4 amounts of standby print operations; and

5 selecting a networked printer having a preferential priority number as the minimum-utilized  
6 network printer.

1 18. (Previously Presented) The method of claim 14, wherein the network printer  
2 information comprises an IP (Internet Protocol) address of the registered networked printer.

1 19. (Previously Presented) The method of claim 15, wherein the network printer  
2 information comprises an IP (Internet Protocol) address of the registered networked printer.



1           20. (Previously Presented) The method of claim 16, wherein the network printer  
2 information comprises an IP (Internet Protocol) address of the registered networked printer.

1           21. (Previously Presented) The method of claim 17, wherein the network printer  
2 information comprises an IP (Internet Protocol) address of the registered networked printer.

1           22. (Previously Presented) A program storage device, readable by a machine, tangibly  
2 embodying a program of instructions executable by the machine to perform a method of reducing  
3 standby time for printing in a system of networked printers connected to at least one host  
4 computer, the method comprising:

5           the at least one host computer registering at least one item of network print information in  
6 at least one host computer;

7           the at least one host computer accessing the network printer information registered in the  
8 at least one host computer in response to a command for printing print-data being issued;

9           the at least one host computer transmitting a request command from the at least one host  
10 computer to the networked printers requesting the networked printers to transmit standby print  
11 information to the at least one host computer, the standby print information relating to the amount  
12 of standby print operations of the respective networked printers;

13           the at least one host computer determining a minimum-utilized networked printer having  
14 a lowest amount of standby print operations from among the networked printers having standby

15 print operations from the standby print information transmitted from the networked printers to the  
16 at least one host computer in response to the request command; and

17 the at least one host computer transmitting the print-data from the at least one host  
18 computer to the network printer determined to be the minimum-utilized network printer.

1 23. (Previously Presented) The program storage device of claim 22, wherein registering  
2 at least one item of network print information in at least one host computer comprises:

3 determining whether a command for registering network printer information in the at least  
4 one host computer has been issued;

5 detecting the network printers connected to the network; and

6 storing the network printer information in a memory of the at least one host computer.

1 24. (Previously Presented) The program storage device of claim 23, the method further  
2 comprising assigning priority numbers to the network printer information in order of detection and  
3 storing the assigning priority numbers in the memory.

1 25. (Previously Presented) The program storage device of claim 24, wherein determining  
2 a minimum-utilized networked printer comprises:

3 detecting the priority numbers assigned to the networked printers having the lowest  
4 amounts of standby print operations; and

5 selecting a networked printer having a preferential priority number as the minimum-utilized

6 network printer.

1 26. (Previously Presented) The program storage device of claim 22, wherein the network  
2 printer information comprises an IP (Internet Protocol) address of the registered networked printer.

1 27. (Previously Presented) The program storage device of claim 23, wherein the network  
2 printer information comprises an IP (Internet Protocol) address of the registered networked printer.

1 28. (Previously Presented) The program storage device of claim 24, wherein the network  
2 printer information comprises an IP (Internet Protocol) address of the registered networked printer.

1 29. (Previously Presented) The program storage device of claim 25, wherein the network  
2 printer information comprises an IP (Internet Protocol) address of the registered networked printer.

1 30. (Previously Presented) A system comprising:  
2 at least one host computer;  
3 a plurality of network printers;  
4 a network adapted to transfer data between the at least one host computer and the plurality  
5 of network printers;  
6 wherein the at least one host computer includes a controller, a memory operatively  
7 connected to the controller, and an interface adapted to transfer data between the controller and

the network;

wherein each of the plurality of network printers include a controller, a memory operatively connected to the controller, and an interface adapted to transfer data between the controller and the network;

wherein the controller of the at least one host computer is adapted to register at least one item of network print information in the memory of the at least one host computer;

wherein the controller of the at least one host computer is adapted to access the network printer information registered in the memory of the at least one host computer in response to a command for printing print-data being issued;

wherein the controller of the at least one host computer is adapted to transmit a request command from the at least one host computer to the plurality of network printers via the interface of the at least one host computer and the network and the respective interfaces of the plurality of network printers requesting the networked printers to transmit standby print information to the at least one host computer via the respective interfaces of the plurality of network printers and the network and the interface of the at least one host computer, the controller of each respective one of the plurality of network printers being adapted to determine the standby print information relating to the amount of standby print operations of the respective networked printers;

wherein the controller of the at least one host computer is adapted to determine a minimum-utilized networked printer having a lowest amount of standby print operations from among the networked printers having standby print operations from the standby print information transmitted from the networked printers to the at least one host computer in response to the request

29 command; and

30 wherein the controller of the at least one host computer is adapted to transmit the print-data  
31 from the at least one host computer to the network printer determined to be the minimum-utilized  
32 network printer via the interface of the at least one host computer and to the network and the  
33 interface of the network printer determined to be the minimum-utilized network printer.

1 31. (Previously Presented) The system of claim 30, wherein registering at least one item  
2 of network print information in the memory of the at least one host computer comprises:

3 the controller of the at least one host computer determining whether a command for  
4 registering network printer information in the at least one host computer has been issued;

5 the controller of the at least one host computer detecting the network printers connected  
6 to the network; and

7 the controller of the at least one host computer storing the network printer information in  
8 a memory of the at least one host computer.

1 32. (Previously Presented) The system of claim 31, further comprising the controller of  
2 the at least one host computer being adapted to assign priority numbers to the network printer  
3 information in order of detection and storing the assigning priority numbers in the memory.

1 33. (Previously Presented) The system of claim 32, wherein determining a  
2 minimum-utilized networked printer by the controller of the at least one host computer comprises:

-3           the controller of the at least one host computer detecting the priority numbers assigned to  
4           the networked printers having the lowest amounts of standby print operations; and  
5           the controller of the at least one host computer selecting a networked printer having a  
6           preferential priority number as the minimum-utilized network printer.

1           34. (Previously Presented) The system of claim 30, wherein the network printer  
2           information comprises an IP (Internet Protocol) address of the registered networked printer.

1           35. (Previously Presented) The system of claim 31, wherein the network printer  
2           information comprises an IP (Internet Protocol) address of the registered networked printer.

1           36. (Previously Presented) The system of claim 32, wherein the network printer  
2           information comprises an IP (Internet Protocol) address of the registered networked printer.

1           37. (Previously Presented) The system of claim 33, wherein the network printer  
2           information comprises an IP (Internet Protocol) address of the registered networked printer.

## IX. EVIDENCE APPENDIX

### References cited by both Applicant and the Examiner.

1. U.S. Patent No. 6,459,496 to Okazawa, issued on October 1, 2002.<sup>1</sup>
2. U.S. Patent No. 6,333,789 to Shima, issued on December 25, 2001.<sup>2</sup>
3. U.S. Patent No. 5,940,582 to Akabori, *et al.*, issued on August 17, 1999.<sup>3</sup>
4. U.S. Patent No. 5,580,177 to Gase, *et al.*, issued on December 3, 1996.<sup>4</sup>
5. U.S. Patent No. 5,287,194 to Lobiondo, issued on February 15, 1994.<sup>5</sup>
6. U.S. Patent No. 5,228,118 Sasaki, issued on July 13, 1993.<sup>6</sup>
7. U.S. Patent No. 5,179,637 to Nardozzi, issued on January 12, 1993.<sup>7</sup>
8. U.S. Publication No. 2002/0105671 to Sugahara, published on August 8, 2002.<sup>8</sup>

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<sup>1</sup> Office Action (Paper No. 6, date mailed 16 January 2004) and Final Office Action (Paper No. 11, date mailed 1 July 2004).

<sup>2</sup> Office Action (Paper No. 6, date mailed 16 January 2004).

<sup>3</sup> New Application Specification, page 3, line 6-16 and Information Disclosure Statement filed on 22 May 2000.

<sup>4</sup> New Application Specification, page 3, line 6-16 and Information Disclosure Statement filed on 22 May 2000.

<sup>5</sup> New Application Specification, page 3, line 6-16 and Information Disclosure Statement filed on 22 May 2000.

<sup>6</sup> New Application Specification, page 3, line 6-16 and Information Disclosure Statement filed on 22 May 2000.

<sup>7</sup> New Application Specification, page 3, line 6-16 and Information Disclosure Statement filed on 22 May 2000.

<sup>8</sup> Office Action (Paper No. 6, date mailed 16 January 2004).

9. Japanese Publication No. 10116165A to Ishii, published on May 6, 1998.<sup>9</sup>

#### **X. RELATED PROCEEDINGS APPENDIX**

None.

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<sup>9</sup> Office Action (Paper No. 6, date mailed 16 January 2004) and Final Office Action (Paper No. 11, date mailed 1 July 2004).